

AMENDMENT TO THE CLAIMS

The listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claims 1-93 (canceled).

94. (currently amended) The pharmaceutical composition comprising an ApoA-I agonist and a pharmaceutically acceptable carrier, excipient or diluent; wherein the ApoA-I agonist is in the form of an ApoA-I agonist-lipid complex, said complex comprising an the ApoA-I agonist and a lipid;

wherein the ApoA-I agonist comprises:

a 22 to 29-residue peptide or peptide analogue which forms an amphipathic α -helix in the presence of lipids and which comprises formula (I):

Z₁-X₁-X₂-X₃-X₄-X₅-X₆-X₇-X₈-X₉-X₁₀-X₁₁-X₁₂-X₁₃-X₁₄-X₁₅-X₁₆-X₁₇-X₁₈-X₁₉-X₂₀-X₂₁-X₂₂-X₂₃-Z₂

or a pharmaceutically acceptable salt thereof, wherein:

X₁ is Pro (P), Ala (A), Gly (G), Gln (Q), Asn (N), Asp (D) or D-Pro (p);

X₂ is an aliphatic residue;

X₃ is Leu (L) or Phe (F);

X₄ is an acidic residue;

X₅ is Leu (L) or Phe (F);

X₆ is Leu (L) or Phe (F);

X₇ is a hydrophilic residue;

X₈ is an acidic or a basic residue;

X₉ is Leu (L) or Gly (G);

X₁₀ is Leu (L), Trp (W) or Gly (G);

X₁₁ is a hydrophilic residue;

X₁₂ is a hydrophilic residue;

X₁₃ is Gly (G) or an aliphatic residue;

X₁₄ is Leu (L), Trp (W), Gly (G) or Nal;

X₁₅ is a hydrophilic residue;

X₁₆ is a hydrophobic residue;

Aliphatic
AVLI

Acidic
ED

Basic
HRK

Polar

NQST

Hydrophobic
PIFVLWMAGY

Non-Polar
LVI MGA

Hydrophilic

TS HEN QDK R

X₁₇ is a hydrophobic residue;

X₁₈ is Gln (Q), Asn (N) or a basic residue;

X₁₉ is Gln (Q), Asn (N) or a basic residue;

X₂₀ is a basic residue;

X₂₁ is an aliphatic residue;

X₂₂ is a basic residue;

X₂₃ is absent or a basic residue;

Z₁ is H₂N- or RC(O)NR'-;

Z₂ is -C(O)NRR, -C(O)OR or -C(O)OH or a salt thereof;

each R is independently -H, (C₁-C₆) alkyl, (C₁-C₆) alkenyl, (C₁-C₆) alkynyl, (C₅-C₂₀) aryl, (C₆-C₂₆) alkaryl, 5-20 membered heteroaryl or 6-26 membered alkheteroaryl or a 1 to 7-residue peptide or peptide analogue in which one or more bonds between residues 1-7 are independently a substituted amide, an isostere of an amide or an amide mimetic;

each R' is independently -H, (C₁-C₆) alkyl, (C₁-C₆) alkenyl, (C₁-C₆) alkynyl, (C₅-C₂₀) aryl, (C₆-C₂₆) alkaryl, 5-20 membered heteroaryl or 6-26 membered alkheteroaryl;
and

each "—" between residues X₁ through X₂₃ independently designates an amide linkage, a substituted amide linkage, an isostere of an amide or an amide mimetic;

or

a N-terminally blocked form, a C-terminally blocked form, or an N- and C-terminally blocked form of formula (I).

95. (previously presented) The pharmaceutical composition of Claim 94 wherein X₇ of the ApoA-I agonist is a basic residue.

96. (previously presented) The pharmaceutical composition of Claim 94 wherein X₃, X₆, X₉ and X₁₀ of the ApoA-I agonist are hydrophobic residues.

97. (previously presented) The pharmaceutical composition of Claim 94 wherein the ApoA-I agonist is a 22-23 residue peptide or peptide analogue according to formula (I).

98. (currently amended) The pharmaceutical composition of Claim 97 ~~comprising an ApoA-I agonist according to formula (I)~~ wherein:

the "—" between residues X₁ through X₂₃ designates -C(O)NH-;

Z₁ is H₂N-; and

Z₂ is -C(O)OH or a salt thereof.

99. (currently amended) The pharmaceutical composition of Claim 98 ~~comprising an ApoA-I agonist according to formula (I)~~ wherein:

X₁ is Pro (P), Ala (A), Gly (G), Asn (N), Gln (Q), Asp (D) or D-Pro (p);

X₂ is Ala (A), Val (V) or Leu (L);

X₃ is Leu (L) or Phe (F);

X₄ is Asp (D) or Glu (E);

X₅ is Leu (L) or Phe (F);

X₆ is Leu (L) or Phe (F);

X₇ is Lys (K), Arg (R) or Orn;

X₈ is Asp (D) or Glu (E);

X₉ is Leu (L) or Gly (G);

X₁₀ is Leu (L), Trp (W) or Gly (G);

X₁₁ is Asn (N) or Gln (Q);

X₁₂ is Glu (E) or Asp (D);

X₁₃ is Gly (G), Leu (L) or Aib;

X₁₄ is Leu (L), Nal, Trp (W) or Gly (G);

X₁₅ is Asp (D) or Glu (E);

X₁₆ is Ala (A), Nal, Trp (W), Leu (L), Phe (F) or Gly (G);

X₁₇ is Gly (G), Leu (L) or Nal;

X₁₈ is Gln (Q), Asn (N), Lys (K) or Orn;

X₁₉ is Gln (Q), Asn (N), Lys (K) or Orn;

X₂₀ is Lys (K) or Orn;

X₂₁ is Leu (L);

X₂₂ is Lys (K) or Orn; and X₂₃ is absent or Lys (K).

100. (previously presented) The pharmaceutical composition of Claim 99 wherein X₂₃ of the ApoA-I agonist is absent.

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~~102~~. (Currently amended)) The pharmaceutical composition of Claim 94 comprising an ApoA-I agonist according to formula (I) wherein one of X₁₈ or X₁₉ is Gln (Q) or Asn (N) and the other of X₁₈ or X₁₉ is Lys (K) or Orn.

Claim 102 (canceled).

103. (currently amended) The pharmaceutical composition of Claim 94 comprising an ApoA-I agonist wherein the peptide or peptide analog is selected from the group consisting of:

| | | |
|------------|-------------------------|-----------------|
| peptide 1 | PVLDLFRELLNELLEZLKQKLK | (SEQ ID NO:1), |
| peptide 2 | GVLDLFRELLNELLEALKQKLKK | (SEQ ID NO:2), |
| peptide 3 | PVLDLFRELLNELLEWLKQKLK | (SEQ ID NO:3), |
| peptide 4 | PVLDLFRELLNELLEALKQKLK | (SEQ ID NO:4), |
| peptide 5 | pVLDLFRELLNELLEALKQKLKK | (SEQ ID NO:5), |
| peptide 6 | PVLDLFRELLNEXLEALKQKLK | (SEQ ID NO:6), |
| peptide 7 | PVLDLFKELLNELLEALKQKLK | (SEQ ID NO:7), |
| peptide 8 | PVLDLFRELLNEGLEALKQKLK | (SEQ ID NO:8), |
| peptide 9 | PVLDLFRELGNELLEALKQKLK | (SEQ ID NO:9), |
| peptide 10 | PVLDLFRELLNELLEAZKQKLK | (SEQ ID NO:10), |
| peptide 11 | PVLDLFKELLQELLEALKQKLK | (SEQ ID NO:11), |
| peptide 12 | PVLDLFRELLNELLEAGKQKLK | (SEQ ID NO:12), |
| peptide 13 | GVLDLFRELLNEGLEALKQKLK | (SEQ ID NO:13), |
| peptide 14 | PVLDLFRELLNELLEALOQOLO | (SEQ ID NO:14), |
| peptide 15 | PVLDLFRELWNELLEALKQKLK | (SEQ ID NO:15), |
| peptide 16 | PVLDLLRELLNELLEALKQKLK | (SEQ ID NO:16), |
| peptide 17 | PVLELFKELLQELLEALKQKLK | (SEQ ID NO:17), |
| peptide 18 | GVLDLFRELLNELLEALKQKLK | (SEQ ID NO:18), |

| | | |
|-------------|-------------------------|----------------------|
| peptide 19 | pVLDLFRELLNEGLEALKQKLK | (SEQ ID NO:19), |
| peptide 20 | PVLDLFREGLNELLEALKQKLK | (SEQ ID NO:20), |
| peptide 21 | pVLDLFRELLNELLEALKQKLK | (SEQ ID NO:21), |
| peptide 22 | PVLDLFRELLNELLEGLKQKLK | (SEQ ID NO:22), |
| peptide 23 | PLLELFKELLQELLEALKQKLK | (SEQ ID NO:23), |
| peptide 24 | PVLDLFRELLNELLEALQKKLK | (SEQ ID NO:24), |
| peptide 25 | PVLDFFRELLNEXLEALKQKLK | (SEQ ID NO:25), |
| peptide 26 | PVLDLFRELLNELLELLKQKLK | (SEQ ID NO:26), |
| peptide 27 | PVLDLFRELLNELZEALKQKLK | (SEQ ID NO:27), |
| peptide 28 | PVLDLFRELLNELWEALKQKLK | (SEQ ID NO:28), |
| peptide 29 | AVLDLFRELLNELLEALKQKLK | (SEQ ID NO:29), |
| peptide 123 | QVLDLFRELLNELLEALKQKLK | (SEQ ID NO:123), |
| peptide 124 | PVLDLFOELLNELLEALOQOLO | (SEQ ID NO:124), |
| peptide 125 | NVLDLFRELLNELLEALKQKLK | (SEQ ID NO:125), |
| peptide 126 | PVLDLFRELLNELGEALKQKLK | (SEQ ID NO:126), |
| peptide 127 | PVLDLFRELLNELLELLKQKLK | (SEQ ID NO:127), |
| peptide 128 | PVLDLFRELLNELLEFLKQKLK | (SEQ ID NO:128), |
| peptide 129 | PVLELFNDLLRELLEALQKKLK | (SEQ ID NO:129), |
| peptide 130 | PVLELFNDLLRELLEALKQKLK | (SEQ ID NO:130), |
| peptide 131 | PVLELFKELLNELLDALRQKLK | (SEQ ID NO: 131), |
| peptide 132 | PVLDLFRELLNLEALQKKLK | (SEQ ID NO:132), |
| peptide 133 | PVLELFFERLLEDLLQALNKKLK | (SEQ ID NO:133), |
| peptide 134 | PVLELFFERLLEDLLKALNQKLK | (SEQ ID NO:134), |
| peptide 135 | DVLDLFRELLNELLEALKQKLK | (SEQ ID NO:135), |
| peptide 136 | PALELFKDLLQELLEALKQKLK | (SEQ ID NO:136), |
| peptide 137 | PVLDLFRELLNEGLEAZKQKLK | (SEQ ID NO:137), |
| peptide 138 | PVLDLFRELLNEGLEWLKQKLK | (SEQ ID NO:138), |
| peptide 139 | PVLDLFRELWNEGLEALKQKLK | (SEQ ID NO:139), |
| peptide 140 | PVLDLFRELLNEGLEALOQOLO | (SEQ ID NO:140), |
| peptide 141 | PVLDFFRELLNEGLEALKQKLK | (SEQ ID NO:141), and |
| peptide 142 | PVLELFRELLNEGLEALKQKLK | (SEQ ID NO:142), |

and the N-terminal acylated and/or C-terminal amidated or esterified forms thereof, wherein X is Aib; Z is Nal; and O is Orn.

104. (currently amended) The pharmaceutical composition of Claim 103 ~~comprising an~~
wherein the peptide or peptide analog ApoA-I agonist that is SEQ ID NO: 4.

Claims 105-109 (canceled).

110. (currently amended) The pharmaceutical composition of Claim 94 ~~comprising an~~
~~ApoA-I agonist~~ wherein X₃ is Leu (L) or Phe (F), X₆ is Phe (F), X₉ is Leu (L) or Gly (G),
and X₁₀ is Leu (L), Trp (W) or Gly (G).

Claims 111-127 (canceled).